

**PRE-METERED, UNSUPPORTED MULTILAYER MICROPOROUS  
MEMBRANE**

**ABSTRACT OF THE DISCLOSURE**

An at least two layer, unsupported, continuous microporous membrane is disclosed. The at least two layer, unsupported, continuous microporous membrane may include at least two different membrane pore size layers or the pore sizes may have about the same pore size. Apparatus and processes for fabricating at least a two layer unsupported, continuous, microporous membrane are also disclosed. One representative process disclosed for forming a continuous, unsupported, multilayer phase inversion microporous membrane having at least two layers comprises of the acts of: operatively positioning at least one dope applying apparatus, having at least two polymer dope feed slots, relative to a continuous moving coating surface; applying polymer dopes from each of the dope feed slots onto the continuously moving coating surface so as to create a multiple layer polymer dope coating on the coating surface; subjecting the multiple dope layer to contact with a phase inversion producing environment so as to form a wet multilayer phase inversion microporous membrane; and then washing and drying the membrane. Other representative apparatuses and processes are also disclosed.